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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.  
ERIM-45702/03

Re Application Of: Waltz et al

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/863,513	05/23/2001	Sunray Chang	25006	2121	9882

Invention: TEXT AND IMAGERY SPATIAL CORRELATOR

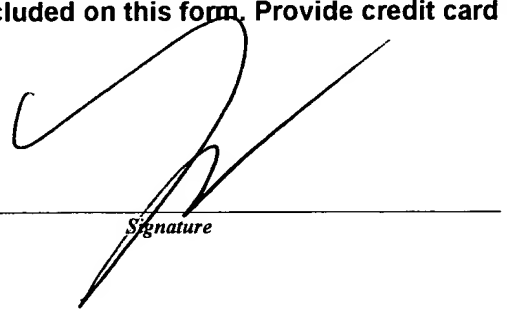
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Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on  
*January 23, 2006.*

The fee for filing this Appeal Brief is: \$500.00

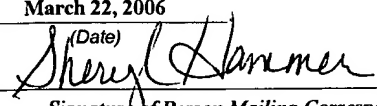
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- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
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Signature

Dated: March 22, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

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In re application of: Waltz et al.

Serial No.: 09/863,513

Group No.: 2121

Filed: May 23, 2001

Examiner: Sunray Chang

For: TEXT AND IMAGERY SPATIAL CORRELATOR

**APPELLANTS' BRIEF UNDER 37 CFR §1.192**

Mail Stop Appeal Brief  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**I. Real Party in Interest**

The real party and interest in this case is Veridian ERIM International, Inc., a Michigan corporation, by assignment.

**II. Related Appeals and Interferences**

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims**

The present application was filed with 23 claims. Claims 13-14 were canceled by amendment in February 2005. Claims 1-12 and 15-23 are pending, rejected and under appeal. Claims 1 and 18 are independent.

**IV. Status of Amendments Filed Subsequent  
Final Rejection**

No after-final amendments have been made.

**V. Summary of Claimed Subject Matter**

Independent claim 1 resides in a method of correlating text and imagery. The method includes the steps of specifying a target concept, providing textual material and imagery, and training a text search detector to examine the textual material for text regions which relate to the target concept. Text relating to target detection is recorded in a database A in the event of a match or other meaningful association. The method further includes the step of training a discriminating feature detector to search for locations within the imagery which relate to the target concept, and creating a location target detection record in a database B in the event of a match or other meaningful association. The records in both databases are compared to declare an approximate correlation, if any, indicative of a common target concept. (Specification, page 6, line 5 to page 8, line 19).

Independent claim 18 is directed to a system for a text and imagery spatial correlator. The system comprises a document text parsing and interpretation engine which uses a context-based search to generate topical information, and an imagery engine operative to associate the components of an image with known spatial features and generate location information; and a matching subsystem operative to associate the topical information with the location information and present a result to a user. (Specification, page 5, line 9 to page 6, line 3).

**VI. Grounds of Objection/Rejection To Be Reviewed On Appeal**

1. The rejection of claims 1-10 and 12-23 under 35 U.S.C. §102(b) as being anticipated by U.S. Publication No. 2002/0156779 to Elliott.

2. The rejection of claim 11 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0156779 to Elliott in view of U.S. Patent No. 6,741,743 to Stalcup.

**VII. Argument**

A. Claims 1-10 and 12-23, wherein claims 2-10 and 12-23 stand or fall with claim 1.

Claim 1 was rejected under 35 U.S.C. §102(b) over Elliott (U.S. Publication No. 2002/0156779). It is Appellant's position that the Examiner has misinterpreted both the claims on appeal and the cited reference.

Elliot discloses an Internet search engine based upon a spatial indexing intelligent agent. The agent indexes information against a database of spatial language which is used in combination with a modified search engine that conducts searches using spatially relevant criteria and spatial analysis algorithms. Alpha-numeric values from a mathematical system are used for identifying spatial locations, and can be arbitrary, geocentric, virtual, and galactic ('779 application, Abstract).

It is well-settled that anticipation may be established only when a single prior art reference discloses, expressly or under principles of inherency, *each and every element* of a claimed invention. RCA Corp. v. Applied Digital Data Systems, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). A disclosure "that 'almost' meets that standard does not 'anticipate'." Connell v. Sears, Roebuck Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983). Elliot does not teach or suggest correlations involving imagery. Accordingly, there can be no anticipation.

On page 2 of the final Office Action, under a section entitled "Claim Interpretation," the Examiner explains how "imagery" is to be treated for the purposes of examination. In particular, the Examiner cites page 5, lines 11-16 of the instant specification, which reads as follows:

"The TISC [Text and Imagery Spatial Correlator] automatically detects and correlates events . . . or objects . . . that are *observable in imagery* and described in text reports." (Emphasis added.)

It should be clear from this passage – cited by the Examiner – that the invention of Appellant does exactly what is stated in the specification; that is, images are compared to text. Nevertheless, for some reason which escapes Appellant, the Examiner "interprets" imagery to mean "information of imagery." Why? Apart from the fact that Applicant does not see a need for such an interpretation, it appears to be incorrect. Imagery is imagery, and imagery is not in need of a more "sophisticated" definition – especially "information of imagery," which has no clear meaning.

The Examiner argues that "the imagery is considered to be the 'coordinate information' in Elliott." However, this appears to be entirely incorrect. Referring to the definition section of the Elliott application, paragraph [0019], "coordinate information" is defined as "alpha-numeric values from a mathematical system for identifying spatial locations, and can be arbitrary, geometric, virtual, and galactic." "Alpha-numeric values" are not "imagery." Indeed, by "spatial," Elliott refers to coordinate information and identifier information, such as a city name, county, state, area code, zip code, and so

forth. This is information about location, and not imagery.

In the Elliott reference, a comparison of textual material *and imagery* simply does not occur. Indeed, the Examiner appears to have misinterpreted Elliot altogether. With respect to Appellant's step of "providing textual material and imagery," the Examiner cites paragraphs 25 and 26 of Elliot, which read as follows:

"[0025] A second database, separate from the spatial lexicography database, contains documents indexed by a spatial indexing intelligent agent or spider. How the spider searches for documents will be discussed later.

[0026] Having both databases, a requester would provide search criteria which is necessary to conduct the search. The search criteria comprises a reference location and a search radius about the reference location."

These passages do not teach the step of "providing textual material and imagery." The Examiner claims that Elliott teaches "specifying a target concept," but this in and of itself appears to be untrue. Referencing paragraph [0026], it appears that a user of the Elliott system inputs "a reference location and a search radius about the reference location," and not a "target concept." The same holds true of the step of training a discriminating feature detective to search for locations within the imagery relating to a target concept. Given that anticipation requires the disclosure of each and every element of an invention as claimed, anticipation simply does not apply in this case.

B. Claim 11

Claim 11 stands rejected over Elliott in view of Stalcup ('743). With respect to the combination of Elliott and Stalcup, the Examiner claims that it would have been obvious to combine these references "for the purpose of efficient storage of the data and efficient indexing and retrieval of multi-media data objects." Applicant has no idea from where this conclusion has been drawn, but in any event, there is no teaching or suggestion from the *prior art* as to the proposed combination, and only speculation on the part of the Examiner, *prima facie* obviousness has not been established.

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**Conclusion**

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellants seek the Board's concurrence at this time.

Date: March 22, 2006

Respectfully submitted,

By: \_\_\_\_\_

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APPENDIX ACLAIMS ON APPEAL

1. A method of correlating text and imagery, comprising the steps of:  
specifying a target concept;  
providing textual material and imagery;  
training a text search detector to examine the textual material for text regions which relate to the target concept, and creating a text target detection record in a database A in the event of a match or other meaningful association;  
training a discriminating feature detector to search for locations within the imagery which relate to the target concept, and creating a location target detection record in a database B in the event of a match or other meaningful association; and  
comparing the records in both databases to declare an approximate correlation, if any, indicative of a common target concept.
2. The method of claim 1, wherein the target concept is an event or object.
3. The method of claim 1, wherein the discriminating features within the imagery include infrared, multispectral or spatial features.
4. The method of claim 1, wherein the step of training the text search detector includes the steps of:
  - a) defining a search phrase;
  - b) testing the phrase against a validation set, and
  - c) repeating a) and b) until all relevant targets in the validation set are detected.
5. The method of claim 1, wherein the examination of the textual material includes searching the text regions for geographic location text associated with the target concept.

6. The method of claim 1, further including the step of generating a concept identifier code in both the text and image target detection records using a lookup table in the event of a match or other meaningful association.

7. The method of claim 6, wherein the searching of the text regions is accomplished by reference to a Gazetteer of place names and their corresponding lat-long locations.

8. The method of claim 7, wherein the text target detection record contains:  
a text document ID number,  
an index to locate a paragraph or passage within the document,  
the target concept identifier code (CIC), and  
the latitude-longitude (LL) value.

9. The method of claim 6, wherein the search for locations within the imagery includes extracting a lat-long location.

10. The method of claim 9, wherein the location target detection record contains:  
an image ID number,  
an index to locate the target within the image,  
the target concept identifier code (CIC), and  
the latitude-longitude (LL) value.

11. The method of claim 1, wherein the target concept within the imagery is in the form of a pixel index.

12. The method of claim 10, wherein:  
the searching of the test regions is accomplished by reference to a Gazetteer of place names and their corresponding lat-long locations; and  
the text target detection record contains:



a text document ID number,  
an index to locate a paragraph or passage within the document,  
the target concept identifier code (CIC), and  
the latitude-longitude (LL) value.

15. The method of claim 2, wherein the event may be characterized as an emergency, tragedy, disaster or crisis.

16. The method of claim 2, wherein the object involves an environmental asset, structure, or mode of transportation.

17. The method of claim 1, wherein either or both of the steps associated with examining the textual material or searching for locations within the imagery are carried out in a batch mode or as part of a recursive flow.

18. A text and imagery spatial correlator, comprising:  
a document text parsing and interpretation engine which uses a context-based search to generate topical information;  
an imagery engine operative to associate the components of an image with known spatial features and generate location information; and  
a matching subsystem operative to associate the topical information with the location information and present a result to a user.

19. The text and imagery spatial correlator of claim 18, wherein text parsing and interpretation engine includes a user-trainable agent to define the context of interest in a current search.

20. The text and imagery spatial correlator of claim 18, wherein the topical information concerns an event or an object.

21. The text and imagery spatial correlator of claim 20, wherein the event may be characterized as an emergency, tragedy, disaster or crisis.

22. The text and imagery spatial correlator of claim 20, wherein the object involves an environmental asset, structure or mode of transportation.

23. The text and imagery spatial correlator of claim 18, wherein the matching subsystem is operative to associate the topical information with the location information in a batch mode or as part of a recursive flow.

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**APPENDIX B**

**EVIDENCE**

None.

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**APPENDIX C**

**RELATED PROCEEDINGS**

None.